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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,913	11/13/2001	Satoshi Gocho	1186.1020	6641

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EXAMINER

DICUS, TAMRA

ART UNIT

PAPER NUMBER

1774

DATE MAILED: 04/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/986,913

Applicant(s)

GOCHO ET AL.

Examiner

Tamra L. Dicus

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Objections

1. Claims 6 and 26 are objected to because of the following informalities: It appears “transmissibility” is spelled incorrectly. The Examiner suggests changing it to “transmissivity”. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 9, and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear what an orientation state/portion and non-orientation state are.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 1-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,284,337 to Lorimor et al. in view of JP 03118198 to Kijima et al., and USPN 6,111,696 to Allen et al.

5. Lorimor teaches a durable security laminate with a heat shrinkable layer. Lorimor's laminate comprises an emblem layer with liquid crystal polymers or pearlescent pigments such as titania. The emblem layer is either on the protective layer (claim 6) or low adhesion coating. This emblem layer may be hidden (latent image formation layer) or visible. See col. 5, lines 1-15. The protective layer is made of the same materials as Applicant claims, see col. 4, lines 20-25, and hence has the same associated light transmissivity/scattering properties of instant claims 6,7, 15, 16, 26, & 27. Lorimor teaches an adhesive layer also (sticky base layer) at col. 5, lines 53-68 on the protective layer/emblem layer. Lorimar teaches a light reflective substrate with a light reflective surface, such as paper Example 1 (claim 9). Also in Example 1 Lorimar teaches a laminated card (laminated structure of an information-recorded substrate) (claim 11). Regarding claim 30, Lorimor teaches in Example 1 adhesive (base) coated on a silicone release liner (release layer).

6. While Lorimor teaches the emblem layer may be a hologram/light reflective optical layer, Lorimor does not teach *per se* an additional optical layer (claims 4, 5, 12, 13, 14, 23, 24, & 25). While Lorimor teaches a liquid crystalline polymer, Lorimor is also silent to a thermotropic type of liquid crystalline polymer (claims 2, 10, & 22). The reason Lorimor includes a liquid crystalline polymer is to change colors with the viewing angle. See col. 5, lines 14-15. Kijima teaches a card and image forming method having a metal reflecting layer (optical layer having light reflectivity), a liquid crystal polymer layer of a thermotropic type, and polarizing film

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laminated to a card base. See Abstract. Figure 1 shows the optical layer on the latent image liquid crystal polymer layer (instant claim 4). Hence one would be motivated to provide a thermotropic type of liquid crystalline polymer and optical layer to the laminate of Lorimor since Kijima teaches the application of such layers are conventional enabling a card capability of preventing forgery and the liquid polymer provides the appropriate melting point as taught by Kijima in the Abstract.

7. While Lorimor teaches in Example 1 a hologram and aluminum reflector (light reflective substrate) over the low adhesion coating, Lorimor does not teach the light reflective substrate and laminated card having an optical layer facing the latent image (claim 11). However, Kijima teaches the optical layer on the latent image liquid crystal polymer layer, laminated to a card base. Hence it would have been obvious to one of ordinary skill in the art to modify the laminate of Lorimor to include the structure of instant claim 11 since Kijima teaches the application of such layers are conventional enabling a card capability of preventing forgery as taught by Kijima in the Abstract.

8. While Lorimor teaches a low adhesion coating, Lorimor does not teach the laminate structure as in instant claims 17-19, 28-29. Also at col. 27, lines 48-50, Allen teaches adhesives may be used to laminate optical films to another film, surface, or substrate (claims 17-19, 28-29). Hence, it would have been obvious to one of ordinary skill in the art to modify the laminate of Lorimor to include a light reflective substrate having a light reflective surface to include the structure of instant claim 11 and a base adhesive layer of instant claims 17-19, 28-29 adjacent and/or between layers since Allen teaches one would employ adhesives to laminate optical films to another film, surface, or substrate as cited above.

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9. Lorimor teaches a polarizing film, but is silent to the shape of the polarizer of claims 8, 20, and 31. Allen teaches a polarizer in an elliptical shape at col. 9, lines 41-43. "Elliptical" is synonymous to "circularly". Therefore, it would have been obvious to one of ordinary skill in the art to modify the laminate of Lorimor to include a polarizer in a circularly shape since Allen teaches elliptical polarizers have a small index of refraction, achieving high sensitivity at col. 9, lines 50-55.

10. Regarding the orientation/non-orientation of the latent image, while Lorimor does not teach orientation of an image, Allen teaches at col. 2, lines 35-40 it is known to blend and disperse liquid crystal polymers in a continuous phase and axes aligned. The Examiner takes the position that the two phenomena are equivalent.

Conclusion

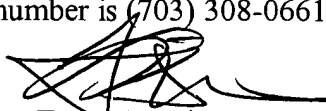
11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. USPN 6,110,864 to Lu teaches a security card and method for making the same comprising an adhesive, pigments like titania and liquid crystalline polymers. USPN 5,999,280 to Huang teaches a holographic device oriented to form a hidden pattern. USPN 5,712,731 to Drinkwater et al. teaches holograms in security documents. USPN 6,210,777 to Vermeulen et al. teaches a security documents with interference pigments such as titania. USPN 6,531,230 to Weber et al. teaches color shifting multilayer films having polarizers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamra L. Dicus whose telephone number is (703) 305-3809. The examiner can normally be reached on Monday-Friday, 7:00-4:30 p.m., alternate Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on (703) 308-0449. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-8329 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Tamra L. Dicus
Examiner
Art Unit 1774

April 1, 2003

CYNTHIA H. KELLY
SUPERVISORY PATENT EXAMINER
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